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Notice of Allowability	Application No.	Applicant(s)	
	09/888,970	ONG, ADRIAN E.	
Notice of Allowability	Examiner	Art Unit	
	Daniel D. Chang	2819	
The MAILING DATE of this communication appe All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIG	(OR REMAINS) CLOSED in this or other appropriate communica GHTS. This application is subje	application. If not included tion will be mailed in due course.	ΓΗΙS nitiative
1. This communication is responsive to <i>Notice of Appeal filed</i>	<u>6/29/06</u> .		
2. The allowed claim(s) is/are 14,15 and 18-21.			
<ol> <li>Acknowledgment is made of a claim for foreign priority un</li> <li>a) All b) Some* c) None of the:</li> <li>1. Certified copies of the priority documents have</li> <li>2. Certified copies of the priority documents have</li> <li>3. Copies of the certified copies of the priority documents have</li> <li>International Bureau (PCT Rule 17.2(a)).</li> </ol> * Certified copies not received:	been received. been received in Application No		the
Applicant has THREE MONTHS FROM THE "MAILING DATE" of noted below. Failure to timely comply will result in ABANDONM THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.	of this communication to file a rep ENT of this application.	oly complying with the requiremen	ts
4. A SUBSTITUTE OATH OR DECLARATION must be submi INFORMAL PATENT APPLICATION (PTO-152) which give	tted. Note the attached EXAMIN s reason(s) why the oath or decl	ER'S AMENDMENT, of NOTICE Caration is deficient.	)F
<ul> <li>5. CORRECTED DRAWINGS ( as "replacement sheets") must</li> <li>(a) including changes required by the Notice of Draftsperson</li> <li>1) hereto or 2) to Paper No./Mail Date</li> <li>(b) including changes required by the attached Examiner's Paper No./Mail Date</li> <li>Identifying indicia such as the application number (see 37 CFR 1.</li> </ul>	on's Patent Drawing Review (PI	e Office action of	
each sheet. Replacement sheet(s) should be labeled as such in the	e header according to 37 CFR 1.1	21(d).	
6. DEPOSIT OF and/or INFORMATION about the depose attached Examiner's comment regarding REQUIREMENT F	SIT OF BIOLOGICAL MATERIA FOR THE DEPOSIT OF BIOLOG	L must be submitted. Note the SICAL MATERIAL.	
Attachment(s)  1. ☑ Notice of References Cited (PTO-892)  2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)  3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08)	6. ⊠ Interview Summa Paper No./Mail I	Date <u>20060801</u> .	
Paper No./Mail Date  4. Examiner's Comment Regarding Requirement for Deposit of Biological Material	8. ⊠ Examiner's State	ment of Reasons for Allowance	

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## **EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Philip Woo on August 1, 2006.

The application has been amended as follows:

Claims 1-13, 16, 17, and 22-24 have been canceled.

Claim 14 has been deleted and replaced by the following:

- 14. A system for driving a data signal, comprising:
- a plurality of bit lines;
- a data bus having a plurality of bus lines, wherein each bus line is connectable to a respective portion of the plurality of bit lines; and
- a charging circuit coupled to at least one of the bus lines of the data bus, wherein the charging circuit is configured to pre-charge the at least one of the bus lines of the data bus to a first voltage level in advance of driving a first type of data signal or a second type of data signal across the at least one of the bus lines; and

a pull-down circuit coupled to the at least one of the bus lines of the data bus, wherein the pull-down circuit is configured to pull the at least one of the bus lines of the data bus to a second voltage level, wherein the pull-down circuit comprises:

<u>a transistor coupled at one end to the at least one of the bus lines of the data bus</u> and at the other end to ground; and

logic circuitry coupled to a gate of the transistor, wherein an output signal from the logic circuitry controls the transistor, wherein the logic circuitry comprises a first input terminal for receiving an equilibration signal and a second input terminal for receiving a data signal.

Claim 18, line 1, claim number "16" has been deleted and replaced by --14--.

## Reasons for Allowance

Claims 14, 15, and 18-21 are allowable over the prior art of record.

The following is an examiner's statement of reasons for allowance: the best prior art of record, Uchida et al., taken alone or in combination of other references, does not teach or fairly suggest a system for driving a data signal comprising, among other things, that the pull-down circuit comprises a transistor coupled at one end to the at least one of the bus lines of the data bus and at the other end to ground; and logic circuitry coupled to a gate of the transistor, wherein an output signal from the logic circuitry controls the transistor, wherein the logic circuitry comprises a first input terminal for receiving an equilibration signal and a second input terminal for receiving a data signal (claim 14), as set forth in the claim.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

## **Contact Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel D. Chang whose telephone number is (571) 272-1801. The examiner can normally be reached on Monday through Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rexford Barnie can be reached on (571) 272-7492. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Daniel D. Chang
Primary Examiner
Art Unit 2819

DANIEL CHANG PRIMARY EXAMINER

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